

14 a standard interface connector to connect the keyboard to a
15 computer; and
16 a controller for converting the output of the circuit matrix
17 for the contacted key to one which is recognizable by the
18 computer so that the output of the keyboard provides to the
19 standard interface connector correctly, identifies the contacted
20 keys character or function to the computer irrespective of the
21 position of the key on the keyboard.

[Please amend claim 2 as follows:]

1 2. (Amended) The data entry device of Claim 1, wherein the
2 controller includes a look-up table responsive to the multi-bit
3 output of the circuit matrix the multi-bit codes for each of the
4 keys to provide a standard scan code signal recognizable by any
5 computer compatible with the interface connector.

A1 [Please amend claim 3 as follows:]

1 3. (Amended) The data entry device of Claim 2 wherein the keys
2 have in the base of the key a plurality of locations each
3 representing one digit in the multi-bit binary code and one or
4 more pins each positioned one of the locations so that the keys
5 all contain a different combination of locations with posts and
6 without posts to identify them distinctively from the other keys
7 in accordance with the multi-bit binary code.

[Please amend claim 4 as follows:]

1 4. (Amended) The data entry device of Claim 2 wherein the keys
2 each have a circuit embedded therein storing the multi-bit binary
3 code identifying each key distinctively from the other keys and
4 have electrical contacts providing excitation to the circuit and
5 connecting it to the matrix to provide a multi-bit code signal to
6 the controller to identify the key.

Add the following new claims:

1 9. The data entry device of Claim 2 wherein the keyboard has
2 openings to accept the keys and expose the multi-bit binary code
3 stored therein to the circuit matrix wherein the keys are spring
4 loaded with arms with feet that hold the keys in position and are
5 flexible to enable removal of the key and the binary code therein
6 from the keyboard to permit selective placement of the keys in
7 desired keyboard locations.

1 10. Data entry device for the disabled comprising:

2 a keyboard having a plurality of multifunction key
3 positions;

4 a set of movable keys each key of the set containing an
5 inscription on the keycap thereof representing a different
6 character or function of the key in the set and containing a
7 multi-bit binary code stored therein identifying the character or
8 function of the particular key, said keys being capable of being
9 positioned in any one of the key positions in the keyboard so
10 that any key and its character identifying code can be placed in
11 any key position, said keys being responsive to user contact to
12 the keycaps thereof,

13 a circuit matrix disposed below and in a fixed relationship
14 to said keyboard, said circuit matrix having detection positions
15 for each of the plurality of keys which detection position are
16 each capable of detecting the binary code of any one of the keys
17 when that key is contacted to produce an electrical signal
18 representative of the binary code associated with the contacted
19 key;

20 a standard interface connector to connect the keyboard to
21 any computer compatible with the interface; and

22 a controller for converting the output of the circuit matrix
23 for any contacted key to one which is recognizable by the
24 computer so that the output of the keyboard provided to the
25 standard interface connector correctly identifies the contacted
26 keys character or function to the computer irrespective of the

27 position of the contacted key on the keyboard so that the key can
28 be moved to configure the keys on the keyboard in accordance with
29 a users disability.

1 11. The data entry device of Claim 10, wherein the controller
2 includes a look-up table responsive to the multi-bit output of
3 the circuit matrix of each of the keys to provide a standard scan
4 code signal recognizable by any computer compatible with the
5 interface connector.

1 12. The data entry device of Claim 10 wherein the keys have in
2 the base of the key and movable with key a plurality of locations
3 each representing one digit in the multi-bit binary code and one
4 or more pins each positioned one of the locations so that the
5 keys all contain a different combination of locations with posts
6 and without posts to identify them distinctively from the other
7 keys in accordance with the multi-bit binary code.

13 13. The data entry device of Claim 10 wherein the keys each have
2 a circuit embedded therein storing the multi-bit binary code
3 identifying each key distinctively from the other keys and have
4 electrical contacts providing excitation to the circuit and
5 connecting it to the matrix to provide a multi-bit code signal to
6 the controller to identify the key.

1 14. The data entry device of Claim 11 wherein the circuit matrix
2 provides the bits of the multi-bit binary code to the controller
3 in parallel.

1 15. The data entry device of Claim 12 wherein the circuit matrix
2 provides the bits of the multi-bit binary code to the controller
3 serially.

1 16. The data entry device of Claim 11 wherein the circuit matrix
2 contains a plurality of capacitive switches each switch
3 responsive to one of the pins to generate a key make signal.

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1 17. The data entry device of Claim 2 wherein the keyboard has
2 openings to accept the keys and expose the multi-bit binary code
3 stored therein to the circuit matrix wherein the keys are spring
4 loaded with arms with feet that hold the keys in position and are
5 flexible to enable removal of the key and the binary code therein
6 from the keyboard to permit selective placement of the keys in
7 desired keyboard locations.
